United States
Office of Personnel Management

FWS Job Grading Standard for

Aircraft Mechanic

8852

Workforce Compensation and Performance Service
Office of Classification Programs
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COVERAGE OF STANDARD

This standard is used to grade all nonsupervisory jobs involved in the maintenance and repair of fixed and rotary wing aircraft systems, airframes, components, and assemblies. Aircraft worked on include a variety of models, are single and multi-engine types, and have reciprocating and jet engines.

WORK NOT COVERED BY THIS STANDARD

Jobs involved in the maintenance and repair of single aircraft systems (for example, electrical, electronic), or doing specialized aircraft work (for example, propeller overhaul, engine rebuilding) are not graded by this standard.

TITLES

Jobs covered by this standard below the WG-10 level are to be title Aircraft Worker. Jobs covered by this standard at the WG-10 level and above are to be titled Aircraft Mechanic.

GRADE LEVELS

This standard does not describe all possible levels at which jobs might be established. If jobs differ substantially from the skill, knowledge, and other work requirements described in the grade levels of the standard, they may warrant grading either above or below those grades.

HELPER AND INTERMEDIATE JOBS

Jobs that are part of a planned program of training and development for advancement to a higher grade are graded by the job grading standards for Trades Helper and Intermediate Jobs. (WG-10 in this standard is to be used as the "journey level grade" in applying the Intermediate Job Grading Table.)

8852-8 AIRCRAFT WORKER, GRADE 8 8852-8

General: The work at this grade involves making repairs that can be accomplished by removing, cleaning, reinstalling, or replacing defective parts, accessories, and components such as worn gaskets, couplings, and fittings, bad actuators, accumulators, and gauges, sections of corroded fuel and oil lines, worn cable pulleys, frayed spark plug cables, and burned-out landing lights.

The WG-8 aircraft worker locates worn, dirty, or poorly adjusted parts, accessories, and components through visual check. He completes needed repairs like those described above, and makes adjustments and settings such as cable tension, and seat movement settings and adjustments.

Skill and Knowledge: At this grade, the aircraft worker must have a knowledge of where and how a variety of parts, accessories, and components, such as couplings, spark plug cables, seat tracks, and accumulators, are installed. He must have the ability to determine when parts and components should be cleaned and reinstalled, or replaced with standard parts and components. He must have the skill needed to remove and replace parts, accessories, and components, and to make adjustments and settings, such as cable tension and actuator travel, according to established specifications. The aircraft worker also requires skill in the use of common handtools, for example, pliers, wrenches, and screwdrivers.

Responsibility: A higher grade worker or supervisor assigns work orally or through work orders. The aircraft worker selects tools, decides on methods and techniques to use, and carries out assignments with little check during their progress. He obtains standard parts, such as fuel and oil line connections and fittings, cable linkages, and spark plug cables and harnesses, by looking up replacement information in parts manuals and by making comparisons with samples. He insuresthat adjustments and settings, such as takeup on connections, seat travel, and cable tension, meets established requirements by checking and following the specifications called for in repair and manufacturer manuals. A higher grade worker gives advice on unusual problems. For example, when normal installation and adjustment procedures and established specifications fail to give the expected result, a higher grade worker or supervisor suggests other repair procedures or adjustments that can be tried. The higher grade worker or supervisor also checks to see that completed work meets requirements.

Physical Effort: The aircraft worker makes repairs from work stands, and where parts worked on are in hard-to-reach places. This requires him to climb, stand, stoop, bend, stretch, and work in tiring and uncomfortable positions. The aircraft worker frequently lifts parts and equipment that weigh up to 9 kilograms (20 pounds). Occasionally, he may lift and carry items that weigh about 23 kilograms (50 pounds).

Working Conditions: The work at this grade is done inside and outside. Inside areas are drafty and noisy, and fumes are usually present. The aircraft worker may make some repairs

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outside in bad weather. Dirt, dust and grease, are almost always present. Aircraft fluids, such as oil and hydraulic fluids, may irritate the eyes or skin. There is frequent exposure to the possibility of cuts, burns, shocks, strains, and broken bones.

8852-10 AIRCRAFT MECHANIC, GRADE 10 8852-10

General: The work at this grade involves making repairs to a variety of systems, assemblies, and surfaces such as hydraulic, oil, fuel, and pressurization systems, landing gear assemblies, ailerons, and flaps.

The WG-10 mechanic uses test stands and cockpit gauges, instruments, and controls as well as visual checks to troubleshoot (trace and locate) defects and determine the type and extent of repair needed. He installs, alines, and adjusts whole new systems, assemblies, and surfaces (like those described above) as needed, or repairs them by installing and adjusting all defective components and parts such as complete cable riggings, rudder pedals, pumps, and controls. He connects up related systems, such as the hydraulic and cable systems, to the newly-installed or repaired units, and makes adjustments to the units and their related mechanisms that assure their proper operation.

In comparison with WG8, the mechanic at WG-10 must have a greater knowledge of how the various systems, assemblies, and surfaces fit and work together, knowledge of a wide variety of test procedures, and skill in tracing hard-to-locate defects or problems. The WG-10 mechanic determines the repairs needed and does the work with little or no advice. The supervisor checks his work only to see that it meets accepted trade standards.

Skill and Knowledge: At this grade, the mechanic must have knowledge of the makeup, operation, and installation of a variety of systems, assemblies, and surfaces such as fuel and hydraulic systems, landing gear assemblies, and elevators. Because of the complicated ways in which assemblies, systems, and surfaces are installed, fit, and work together the WG-10 mechanic must have more ability than the WG-9 aircraft worker to determine when new surfaces, assemblies, and systems should be installed, when systems, assemblies, and surfaces can be repaired through replacement of new parts and components, and the types and extent of adjustment and alinement required. The mechanic must have skill in the removal, replacement, and adjustment of various systems, assemblies, and surfaces or any of their components and parts. He must also have skill in connecting, meshing, aligning, and adjusting the surfaces, assemblies, and systems with one another, for example, meshing the propeller assembly with the engine, hooking up and adjusting fuel and oil systems for proper flow, injection, and pressure, and setting engine timing. The mechanic must have skill in the use of jigs, fixtures, templates, precision dial and feeler gauges, and common handtools. He must also have skill in the use and read-out of powered ground equipment, test stands, and cockpit instruments and gauges.

Responsibility: The supervisor assigns work orally or through work orders. The mechanic determines the type and extent of repair needed, and completes repairs with little or no check during their progress or upon completion. He makes installations, alinements, and adjustments of the various systems, assemblies, and surfaces according to specifications in repair and manufacturer manuals. For example, he installs rudders and elevators on fixed surfaces, hooks up related control systems such as cable rigging and pulley systems, and makes adjustments to

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controls, pedals, systems, and surfaces according to required operating specifications. The WG-10 mechanic makes more difficult installations, alinements, and adjustments than the WG-8 aircraft worker in that he must be able to install and make all necessary hookups and connections between a wide variety of systems, assemblies, and surfaces as well as to any of the individual parts and components involved. The supervisor insures that overall work meets accepted trade standards.

Physical Effort: Physical effort required at this grade is the same as that described at WG-8.

Working Conditions: Working conditions at this grade are the same as those described at WG-8.